Provision of Customer Usage Data

Recorded Usage Data

- Recorded usage data includes, but is not limited to the following:
  - call attempts
  - completed calls (no charges shall be incurred for incomplete call attempts)
  - use of CLASS/custom features
  - Information Service Provider (ISP) calls
  - IXC specific access usage
  - directory assistance calls via ILEC-provided service
  - CENTREX station level detail records
  - completed flat rate calls which the ILEC may not record for its own offerings
- Recorded usage data shall be transmitted to the CLEC daily
- ILECs shall not charge any fees for recording, rating or transmitting usage data
  - ILEC shall provide the transport facility for transmitting usage and billing data to the CLEC

Provision of Customer Usage Data

Controls and Lost Data

- ILEC shall perform operational and interface testing to ensure that usage records can be sent to the CLEC and accepted, extracted, and processed
- ILEC shall recover lost, damaged, or destroyed data resulting from its errors or omissions at no cost to the CLEC

Provision of Customer Usage Data

Performance Measurements

- ILECs shall meet performance standards for timeliness
- ILECs shall meet a 100% performance standard for complete transmission of all records, or face liability for lost revenue
- ILECs shall meet performance standards for accuracy
- ILECs shall meet performance standards for responsiveness
- ILEC must provide reports detailing prescribed performance results for the ILEC itself, all CLECs on average, and the individual CLEC on at least a monthly basis with sufficient historical data to allow trending

6 Maintenance

Definition

This section describes the requirements for the ILEC's provision of repair, maintenance, testing and surveillance for all resale and unbundled network elements.

Maintenance

Service Parity

- ILEC service parity shall include, ensuring that CLEC subscribers:
  - receive response priority equal to that of ILEC subscribers
  - are handled on a "first come first served" basis along with ILEC subscribers
  - receive regularly scheduled maintenance for network elements equal in quality to that provided by the ILEC for its own network
- CLEC shall handle all interaction with CLEC subscribers, including, but not limited to:
  - scheduling technician visits
  - notifying the subscriber of trouble status and resolution

Maintenance

Emergency/Disaster Recovery Procedures

- ILEC shall provide the CLEC a description of all emergency restoration plans and disaster recovery plans, including, but not limited to:
  - immediate notification of outages
  - single point of contact for coordinating and restoring service
  - real-time access to status information
  - equal priority for CLEC and ILEC subscriber restoration efforts
  - methods and procedures for dispatch of mobile equipment
  - mutually developed escalation procedures
- ILEC shall inform CLEC of repair completion and trouble reason

Maintenance

System Interfaces

- ILEC shall cooperate with the CLEC to establish real-time, electronic interfaces that are seamless and transparent to CLEC personnel
  - electronic bonding shall be system to system connections with immediate update capabilities that do not cause CLECs to use ILEC systems via remote hook up or any other means of access
- Electronic interfaces shall permit the CLEC to perform activities, including but not limited to the following:
  - proactively identify potential service degradation
  - enter trouble reports
  - retrieve and track current status
  - receive estimated time to repair (ETTR) information real-time
  - retrieve all time and material charges at the time of ticket closure
  - receive automated notification of case closure
  - at CLEC's discretion, remotely perform mechanized line tests and obtain recommended course of action directly from ILEC systems
- ILEC shall work with the CLEC to support development of an industry standard trouble report entry format and implement such standard after final resolution by the ECIC

Maintenance

Performance Measurement and Reporting

- ILEC shall comply with performance standards related to:
  - answering incoming trouble reports from the CLEC
  - adhering to specified repair intervals for any out of service trouble ticket
  - restoring emergency network outages
  - restoring outages that require a premises visit
  - restoring outages that do not require a premises visit
  - repeat trouble report rates from the same subscriber
- ILEC must provide reports detailing prescribed performance results for the ILEC itself, all CLECs on average, and the individual CLEC on at least a monthly basis with sufficient historical data to allow trending

7 Miscellaneous Services and Functions

Definition

This section describes the requirements for the ILEC's provision of 911, directory assistance, operator services, and directory listing services.

Miscellaneous Services and Functions

911 and E911 Requirements

- ILEC shall use its service order process to update and maintain customer information in the Automatic Location Identification/Data Management System (ALI/DMS) database
  - the ALI database shall be managed by the ILEC, but open access shall be provided to all participating telephone companies
- CLEC may request that the ILEC provide 911 and E911 access through direct trunks from the CLEC to the E911 Public Safety Answering Point (PSAP)
- ILEC and the CLEC shall arrange for electronic transmission of the following:
  - daily changes and updates to the emergency public agency telephone numbers linked to all NPA-NXXs
  - CLEC subscriber ALI record information
- ILEC shall agree to treat all data on CLEC subscribers as strictly confidential and to use data only for the purpose of providing 911 services

Miscellaneous Services and Functions

Directory Assistance Requirements

- ILEC shall route directory assistance calls dialed by CLEC subscribers to either the CLEC or ILEC dialed access service platform as specified by the CLEC
- If the ILEC provides directory assistance services to CLEC subscribers, it shall provide the same level of service available to ILEC subscribers, including, but not limited to:
  - making service enhancements available to the CLEC on a non-discriminatory basis
  - providing the same level of support for provisioning directory assistance as the ILEC affords itself
  - providing same level of performance for number of rings to answer, average work time, etc.
  - at CLEC's discretion, branding
- Allowing CLEC subscribers the same dialing protocol (411/555-1212) to reach CLEC operator services as ILEC subscribers dial

Miscellaneous Services and Functions

Operator Service Requirements

- ILEC shall route local operator service calls dialed by CLEC subscribers directly to the CLEC or ILEC operator service platform as specified by the CLEC
- If the ILEC provides operator services to CLEC subscribers, it shall provide the same level of service available to ILEC subscribers, including, but not limited to:
  - allowing CLEC subscribers the same dialing protocol (O+/-) to reach CLEC operator services as ILEC subscribers dial
  - making service enhancements available to the CLEC on a non-discriminatory basis
  - providing the same level of fraud control that the ILEC affords itself
  - providing same level of performance for number of rings to answer
- Operator services provided by the ILEC to CLEC subscribers shall be branded as required by the CLEC
- ILEC shall provide an electronic feed of customer call records to the CLEC in Exchange Message Record (EMR) format
- ILEC shall permit the CLEC to interconnect its local operator systems with the ILEC's operator system to support Busy Line Verification/Interrupt services
- ILEC shall update the Line Information Data Base (LIDB) for CLEC subscribers as part of the service order process, or provide the CLEC with access to LIDB at no charge to update it directly

Miscellaneous Services and Functions

Directory Listing Requirements

- Implement the Ordering and Billing Forum (OBF) defined Directory Service Request process for ordering all directory listings, captions, and directory assistance updates
- ILEC shall accept real-time orders via an electronic interface to
  - receive CLEC subscriber information for inclusion in ILEC directory assistance and directory listing databases
  - receive CLEC subscriber information for inclusion in published directories
  - receive CLEC subscriber delivery address information to enable the ILEC to fulfill directory distribution obligations
- ILEC shall provide the ability for the CLEC to electronically query the ILEC listing system to view all listings real-time
  - ownership of each listing is to be masked
- ILEC shall not charge for storage of CLEC subscriber information
- ILEC shall not sell or license, nor allow any third party to use CLEC subscriber listings without the prior written consent of the CLEC
  - CLEC shall receive its pro-rata share of any amounts paid for such information
  - CLEC must be able to include in ILEC customer guide pages the CLEC's listing
- CLEC subscriber listings shall be interfiled with ILEC subscriber listings
  - at no charge, directory covers shall prominently indicate that CLEC listings are included in the directory
  - at the CLEC's option, CLEC customers shall receive a directory with a customized cover branded by the CLEC
- At CLEC's discretion, allow CLEC to bill directly for an enhanced white or yellow page advertisement

LOCAL COMPETITION USERS GROUP
(LCUG)

SERVICE QUALITY MEASUREMENTS (SQM)

Verison 4

Membership: AT&T, Sprint, MCI, LCI, WorldCom

LOCAL COMPETITION USERS GROUP
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SERVICE QUALITY MEASUREMENTS (SQM)

May 22, 1997

Membership: AT&T, Sprint, MCI, LCI, WorldCom

LCUG Service Quality Measurements (SQMs)

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LCUG Service Quality Measurements (SQMs)

Introduction

Background:

On August 8, 1996, the Commission released its First Report and Order (the Order) in CC Docket No. 96-98 (Implementation of the Local Competition Provisions of the Telecommunications Act of 1996). The Order established regulations to implement the requirements of the Telecommunications Act of 1996. Those regulations are intended to enable potential competitive local exchange carriers (CLECs) to enter and compete in local telecommunications markets. The Commission found that nondiscriminatory access to operations support systems ("OSS") of incumbent local exchange carriers ("ILECs") was essential to successful market entry by CLECs. Access to operational support systems was to occur by January 1, 1997. Many variations of interim OSS graphic user interfaces ("GUIs") and electronic gateways have been or are being installed by the ILECs. These interim systems have not provided the capability for the CLECs to provide the same customer experience for their customers as the ILECs do for theirs. The timeliness and accuracy of information processed by the ILEC for pre-ordering, ordering and provisioning, maintenance and repair, unbundled elements, and billing have been less than the expected levels of service. This lack of service delivery does not differ between provisioning method, whether it is simply buying existing services on a wholesale basis to be resold or interconnection utilizing unbundled elements. Final solutions for application-to-application real time system interfaces are evasive because of the complexity, the diversity of commitment schedules to implement them and the lack of industry guidelines.

On February 12, 1997, the Local Competition Users Group (LCUG) issued their "Foundation For Local Competition: Operations Support Systems Requirements For Network Platform and Total Services Resale." The core principles are: Service Parity, Performance Measurement, Electronic Interfaces, Systems Integrity Notification of Change, and Standards Adherence. Each of these are significant to ensure that CLEC customers receive equal levels of service to those of ILEC customers. The LCUG group indicated that it was essential that a plan be developed to measure ILECs performance for all the essential OSS categories, e.g., pre-ordering, ordering and provisioning, maintenance and repair, network performance, unbundled elements, operator services and directory assistance, system performance, service center availability and billing. To that end, an LCUG sub-committee was formed to address measurements and metrics. The following document is the result of that activity. A comprehensive list of all measurements was initially developed and distributed to the team members for review. Each committee member was then assigned a section to investigate and propose recommendations back to the group. The group discussed each measurement and used present measurements criteria contained in regulatory requirements or good business practices to determine the final item and classes of service to be measured. The service quality measurement (SQM) goal was difficult to set because the group lacked historical trended data from the ILECs. The ILECs have been reluctant to share current performance over the past 12-18 months. The goals were drawn from best of class and/or good business practices. The SQM goal may change as the ILECs start sharing historical as well as actually self- reporting data benchmark by the ILEC, the CLEC, and the CLEC industry on a going forward basis.

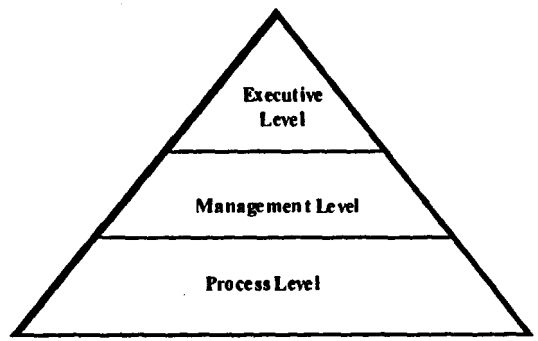
LCUG Service Quality Measurements (SQMs)

Measurement Plans:

A measurement plan must incorporate at least the following characteristics: 1) provide statistically valid and independently verifiable comparisons of the CLEC and CLEC industry experience to that of the ILEC; 2) account for potential performance variations due to differences in service and activity mix; 3) measure not only service measurements but also measures directed at UNEs in general and OSS interfaces; and 4) produce results which demonstrate the nondiscriminatory access to OSS functionality is being delivered across all interfaces and a broad range of resold services and unbundled elements. The measures must address interface availability, timeliness of execution, and accuracy of execution.

It is essential that the CLECs be able to determine that they are receiving equal treatment to that provided to the ILEC and its affiliates. Benchmarks and performance standards that are adopted by the CLECs and ILECs or ordered by commissions and reported will determine whether new service providers are receiving nondiscriminatory treatment. Benchmark comparisons should be self reported by the ILEC and reflect CLEC performance, ILEC performance and CLEC industry performance.

The measurements contained within this document addresses metrics at the executive level. There are several other levels of measurements that are used for the day-to-day activities as illustrated by the following simple diagram.



Process Improvement:

In addition to the actual reporting of measurements there must be a commitment to take corrective action when poor performance or non-parity situations are identified. The ILECs need to self-report all measurements and analyze the results. Root cause analysis must be conducted and corrective actions taken to improve results or resolve issues. Corrective action steps, schedules and milestones should be developed by the ILEC and CLEC as appropriate to ensure timely implementation of corrective steps.

LCUG Service Quality Measurements (SQMs)

ASSUMPTION: OSS FULLY IMPLEMENTED BY ILEC

PRE-ORDER (PO)

Function	**Measurement Objective**	**Proposed Service Quality Measurement**
Timeliness of Providing Pre-Ordering Information	Measures the ILEC response time to a query for appointment scheduling, service & feature availability, address verification, request for Telephone Numbers (TNs) and Customer Service Records (CSRs). The query interval starts with the request message leaving the CLEC and ends with the response message arriving at the CLEC.	≤2 seconds from the time the query is launched until the following data is received back (98% ≤ 2 sec & 100% ≤ 5 sec): • Due Date Reservation • Feature Function Availability • Facility Availability • Street Address Validation • Service Availability Information • Appointment Scheduling • Customer Service Records • Telephone Number Assignments: 1. ≤30 TNs ret'd in ≤ 2 sec 98% of time & ≤ 5 sec 100% of time, 2. > 30 TNs ret'd < 2 hours 100% of time **PO-1** **# of Responses Received on time / Total # of Queries Sent** x 100 **PO-2** **Mean Cycle Time**

LCUG Service Quality Measurements (SQMs)

ASSUMPTION: OSS FULLY IMPLEMENTED BY ILEC

ORDERING AND PROVISIONING (OP)

Function	Measurement Objective	Proposed Service Quality Measurement
Orders completed within specified intervals	Measures the percentage and mean completion interval of orders (installation, feature change, service disconnect) completed with a requested due date that is equal or less than the interval specified in the Service Quality Measurements column.	Unless specified below, orders with no Premises Visit or no physical work involved completed within 1 day of service order receipt *; orders that require Premises Visit or physical work: completed within 3 days of service order receipt *; 99% orders completed on due date *. **Installation:** • UNE Platform (at least DS0 loop + local switch + all common elements) always within 24 hours, regardless of dispatch • UNE Channelized DS1 (DS1 loop + multiplexing) always within 48 hours • Unbundled DS0 loop always within 24 hours • Unbundled DS1 loop (unchannelized) always within 24 hours • Other Unbundled Loops always within 24 hours • Unbundled Switch always within 48 hours • Dedicated Transport - DS0/DS1 always within 3 business days • Dedicated Transport - DS3 always within 5 bus days **Feature Changes:** • All orders completed within 5 business hours of receipt **Disconnects:** • Resale Product or Svc Disconnects always within 24 hrs • UNE switching within 24 hours • UNE (other) within 24 hours **OP - 1** **# of Orders Completed on Time** x 100 **Total # of Orders Completed** **OP - 2** Mean Completion Time

* **Reported for the following types of service or facility: Resold POTS, Resold ISDN, Resold Centrex/Centrex-like, Resold PBX trunks, Resold Channelized T1.5 Service, Other Resold Services, UNE Platform (at least DS0 loop + local switch + transport elements), UNE Channelized DS1 (DS1 loop + multiplexing), Unbundled DS0 loop, Unbundled DS1 loop, Other Unbundled loops, Unbundled Switch, Other UNEs**

LCUG Service Quality Measurements (SQMs)

ASSUMPTION: OSS FULLY IMPLEMENTED BY ILEC

ORDERING AND PROVISIONING (OP) (con'd)

Function	Measurement Objective	Proposed Service Quality Measurement
Order Accuracy	Measures the accuracy and completeness of the ILEC provisioning or disconnecting service by comparing what was ordered & what was completed	≥ 99% are completed without error **OP-3** **# of Orders Completed w/o error x 100** **Total # of Orders Sent**
Order Status	Measures the response time (by percentage and mean time) for: Firm Order Confirmations (C-FOCs and D-FOCS *), Jeopardize / revised due date, Rejects, and Completions from the time an order is sent to the ILEC until a status is received ***C-FOC: accepted, no change** **D-FOC: does not match due date**	• FOC: 100% ≤ 4 hrs • Jeopardies/revised due date: 100% ≤ 4 hours • Rejects: ≥ 97% in ≤ 15 seconds • Order Completions: ≥ 97% received within 30 min of order completion **OP-4** **[# of FOCs returned + (Total # of Orders Sent) - Rejects Returned)] x 100** **OP-5** **Mean Time to Return FOC** **OP-6** **[# of D_FOCs returned in ≤ 4 hours + (Total # of Orders sent - Rejects Returned)] x 100** **OP-7** **Mean Time to Return D-FOCS** **OP-8** **(# of Rejects returned in ≤ 15 seconds) + (Total # of Rejects Returned) x 100**

LCUG Service Quality Measurements (SQMs)

ASSUMPTION: OSS FULLY IMPLEMENTED BY ILEC

ORDERING AND PROVISIONING (OP) (con'd)

Function	Measurement Objective	Proposed Service Quality Measurement
		OP-9 **Mean Time to Return Rejects** **OP-10** **Jeopardies returned w/i 70% of allotted order time ÷ Total # Jeopardies Returned** **OP-11** **(# of Completions returned in ≤ 30 minutes) ÷ (Total # Completed Orders) x 100** **OP-12** **Mean Time to Return Completion** **OP-13** **Jeopardies** **(Total C-FOCS -Total Rejects)**
# of Held Orders	Tracks the percentage **and number** of held orders within specified intervals	Report for: ≥ 15 days, ≤0.1% ≥ 90 days, = 0% **OP-14** **(# of Orders Held for ≥ "*x*" days) ÷ (Total # of Orders Sent to ILEC in the past "*x*" days) x 100** ***where "x" = 15 or 90 days*** **OP-15** **Mean Time of Orders Held Prior to Completion**

LCUG Service Quality Measurements (SQMs)

ASSUMPTION: OSS FULLY IMPLEMENTED BY ILEC

MAINTENANCE / REPAIR (MR)

Function	**Measurement Objective**	**Proposed Service Quality Measurement**
Time to Restore (TTR)	Measures the percent of restorals made by product and service within 24 hours or less* ***Measures the mean time that it takes for the ILEC to resolve customer troubles****	**Out of Service No Dispatch** ≥ 85% in 2 hrs ≥ 95% in 3 hrs ≥ 99% in 4 hrs **All other Troubles** ≥ 95% in 24 hrs **Dispatch Required** ≥ 90% in 4 hrs ≥ 95% in 8 hrs ≥ 99% in 16 hrs **MR-1** *(# of Troubles Restored Within "x" hours + Total # Troubles) x 100* *where "x" = 2,3,4,8,16, or 24 "running clock" hours* ***Mean Time to Restore reported for ILEC and CLEC, for dispatch required and no dispatch required*** **MR-2** ***Total # of Trouble Minutes + Total # of Trouble Reports***
Repeat Troubles	Measures the frequency of recurring customer trouble on the same line, circuit or service*	≤ 1% within 30 days* **MR-3** **# of telephone lines reporting ≥ 2 troubles in the current report month. Total number of troubles in the current report month.**

* **Reported for the following types of service or facility: Resold POTS, Resold ISDN, Resold Centrex/Centrex-like, Resold PBX trunks, Resold Channelized T1.5 Service, Other Resold Services, UNE Platform (at least DS0 loop + local switch + transport elements), UNE Channelized DS1 (DS1 loop + multiplexing), Unbundled DS0 loop, Unbundled DS1 loop, Other Unbundled loops, Unbundled Switch, Other UNEs**

LCUG Service Quality Measurements (SQMs)

ASSUMPTION: OSS FULLY IMPLEMENTED BY ILEC

MAINTENANCE / REPAIR (MR) (con'd)

Function	Measurement Objective	Proposed Service Quality Measurement
		This includes those lines, circuits, or services with a second trouble ticket coded out as CC (Came Clear), CO (central office), FAC (Facility) or STA (station) that follow an initial ticket coded out as Any found or Non-found disposition.
Troubles Per 100 Lines	Measures the frequency of troubles reported within the ILEC's network *	≤ 1.5 per month* **MR-4** **(# of Initial & Repeated Trouble Reports per exchange per month) ÷ (Total # of Lines per exchange) x 100**
Estimated Time to Restore (Appointments Met) ETTR	Measures the compliance of restoring service within the time estimated to the CLEC, reported for premises visits required and premises visit not required*	**≥ 99%*** **MR-5** **(# of Customer Trouble Appointments Met ÷ Total # Customer Trouble Appointments) x 100**

* ***Reported for the following types of service or facility: Resold POTS, Resold ISDN, Resold Centrex/Centrex-like, Resold PBX trunks, Resold Channelized T1.5 Service, Other Resold Services, UNE Platform (at least DS0 loop + local switch + transport elements), UNE Channelized DS1 (DS1 loop + multiplexing), Unbundled DS0 loop, Unbundled DS1 loop, Other Unbundled loops, Unbundled Switch, Other UNEs**